



Engineers Week

JSC employees volunteer to motivate students during National Engineers Week. Story on Page 3.



Cultural celebration

There's more news about the STS-1 Anniversary Party and its companion Russian Festival. Story on Page 4.

Space News Roundup

Vol. 35

April 5, 1996

No. 13

Shuttle lands; Lucid stays

Atlantis crew-minus one-gets warm welcome home

By James Hartsfield

Atlantis and the STS-76 crew—minus one—landed at Edwards Air Force Base, Calif., at 7:29 a.m. CST Sunday, and the astronauts—except for astronaut Shannon Lucid who has begun an almost five-month stay on Mir—arrived back in Houston that afternoon to be greeted by a crowd of relatives, friends and coworkers.

"It is not often that if you come back short one crew member, they pat you on the back," Commander Kevin Chilton told the crowd. "Shannon is safely aboard Mir and doing a great job up there."

Atlantis performed the third shuttle docking with Mir, and Lucid's stay marks the beginning of a continual



presence in space for U.S. astronauts. In addition to Lucid, *Atlantis* dropped off 2,600 pounds of science and mission hardware; 600 pounds of food; 1,500 pounds of water; and 100 pounds of air. The shuttle brought back from the Mir 360 pounds of U.S. science equipment; 700 pounds of Russian hardware; and 68 pounds of European Space Agency science gear.

The five members of *Atlantis*' crew that returned to Ellington Field on Sunday each gave credit for the picture-perfect flight to exceptional teamwork both in space and on the ground.

"My proudest moments on this flight were when the team was pulling together and doing the hard things—
 Please see **CHILTON**, Page 4



JSC Photo by Benny Benavides

STS-76 Pilot Rick Searfoss gets a warm welcome Sunday from a young admirer at Ellington Field. The crew, minus now Cosmonaut Researcher Shannon Lucid, had made a successful landing earlier in the day.



JSC Photo by Nick Nelms

FAIR WARNING—JSC employees gather around as Houston Lighting & Power employees demonstrate the danger of high-voltage power lines at their special arc-truck. The demonstration was part of Tuesday's Electrical Safety Fair, where employees were invited to learn how to avoid being bitten by "silent rattlesnakes" like unsafe cords and power strips.

Endeavor rolls over Tuesday for stacking

By James Hartsfield

With *Atlantis* back on Earth, attention now focuses on *Endeavour's* preparations for STS-77, a mission that will include numerous rendezvous operations with two different experiment satellites and is now planned for a mid-May launch.

Endeavour is currently in Kennedy Space Center's Bay 3 processing hangar, and is on track to be moved to the Vehicle Assembly Bldg. on Tuesday for attachment to the STS-77 solid rockets and fuel tank.

Work on *Endeavour* this week included closing out the engine compartment and crew cabin, cleaning and closing the payload bay doors, and performing inspections of the main engine igniter systems. Today, the newest shuttle is being weighed and its center of gravity determined

prior to moving it to the VAB.

Shuttle managers plan to meet May 9 for a final, thorough review of launch preparations, called the Flight Readiness Review, following which an official launch date will be set for STS-77.



Elsewhere, *Columbia* is in the Bay 2 processing hangar at KSC, being readied for a mid-June flight on STS-78 carrying the Life and Microgravity Science laboratory.

Current work on *Columbia* includes installation of the drag chute door and nose landing gear wheel and tire. Technicians are cleaning the payload bay in preparation for installation of the LMS-1 Spacelab module, and tests of the spacecraft's fuel cells are being performed.

Last week, a Tactical Air Navigation system on *Columbia* was removed. The plan is to replace it with a spare TACAN.

Employees may bring sons, daughters to work

Because of the tremendous response to last year's, "Take Your Daughter to Work" and "Bring Your Son to Work" programs, JSC will sponsor a "Bring Your Children to Work" program April 25.

JSC is combining the two popular programs this year in an effort to provide a quality program for both boys and girls.

"We believe that both boys and girls need to see and experience a 'real time' work environment with men and women working

together," said Lupita Armendariz from the Equal Opportunity Program Office. "All children will have an opportunity to see what Mom and Dad do at work."

As in previous years, JSC is opening participation to all civil servants and on-site or off-site contractor employees as their workloads permit and with supervisory approval. Contractors should contact their employer for additional information and program details.

Any employee may bring a maximum of one child between the ages of 9 and 15 to the Gilruth Center at 8 a.m. The children do not have to be badged individually, but need to be escorted at all times by his/her badged sponsors.

A program that will include a series of presentations will start promptly at 8:30 a.m. at the Gilruth Center.

Invited speakers including scientists, engineers and NASA astronauts will provide an

inside look at the professional opportunities in a wide range of disciplines in the space program. The presentations will conclude at 10:30 a.m. and each child may then spend the remainder of the day observing and sharing in his/her sponsor's normal business activities.

Employees wishing to volunteer or sponsor a child for the day or questions regarding Take Your Children to Work directed to Lupita Armendariz at x30604.

Garman new associate director, management

JSC Director George Abbey appointed Susan H. Garman associate director (management) on Monday.

In this role, Garman will assist the center director in the overall direction of management functions, including institutional resources, fiscal, budget, procurement, facilities and organizational design activities. In addition, she will continue to support the director in key

areas requiring center-level oversight, such as reimbursable agreements, loan agreements, memoranda of understanding which commit center resources, and visits of high-level United States and foreign dignitaries and government officials.

Garman began her career with the Federal Electric Corp., and from 1983 to 1987, she served as
 Please see **GARMAN**, Page 4



Sue Garman

Congress OK's temporary spending bill until April 24

Congress passed another continuing resolution last Friday to keep the federal government operating through April 24, and President Clinton signed the temporary spending measure.

The Senate approved the temporary spending bill by a vote of 64-24 after the House had approved it by voice vote and little debate. The President signed the measure Friday night.

Passage of the bill warded off a third governmentwide furlough,

which would have begun at midnight Friday. Both Senate and House negotiators said they were extremely close to a deal that would resolve differences over permanent appropriations for a number of departments and agencies.

Congress recessed for the Easter holiday without resolving the six-month budget stand-off. After returning from a two-week recess, Congress will have six legislative days to work this sticky issue before the funding again expires.

JSC

Ticket Window

The following discount tickets are available for purchase in the Bldg. 11 Exchange Store from 10 a.m.-2 p.m. Monday-Thursday and 9 a.m.-3 p.m. Friday. For more information, call x35350 or x30990.

Concert: Bay Area Chorus presents "Music of the Americas," at 8 p.m. April 26 at the Bay Harbour United Methodist Church. Tickets cost \$8 for adults and \$5 for students and seniors.

STS-1 Liftoff party: 4:30 p.m. April 12 at Space Center Houston. Tickets cost \$5.

Hockey: Houston Aeros vs Detroit Vipers 6 p.m. April 14 at the Summit. Tickets cost \$12.50.

Bluebonnet Bus Trip: April 13, tickets cost \$15 and include lunch. April 20, tickets cost \$10.

Astroworld: One day pass cost \$17.25.

Fiesta Texas: One day pass cost \$17.25.

Six Flags: One day pass cost \$17.25.

Sea World: Adult tickets cost \$24.50, Children (3-11) cost \$17.25.

Space Center Houston: Discount tickets, adult, \$8.75; child (3-11), \$7.10.

Movie discounts: General Cinema, \$4.75; AMC Theater, \$4; Sony Loew's Theater, \$4.75.

Stamps: Book of 20, \$6.40.

Certificate books: Order popular brand coffees and cereals by mail and receive substantial discounts. Booklet cost \$30.

JSC history: *Suddenly, Tomorrow Came: A History of the Johnson Space Center.* Cost is \$11.

Metro tickets: Passes, books and single tickets available.

Upcoming events: Houston International Festival April 20-21 and April 27-28. Tickets cost \$2.25. Galveston Historic Home Tour May 4-5 and May 11-12. Tickets cost \$13.50. Bus trip to Players Island Casino.

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Gilruth Center News

Sign up policy: All classes and athletic activities are first come, first served. Sign up in person at the Gilruth Center and show a NASA badge or yellow EAA dependent badge. Classes tend to fill up two weeks in advance. Payment must be made in full, in exact change or by check, at the time of registration. No registration will be taken by telephone. For more information, call x30304.

EAA badges: Dependents and spouses may apply for photo identification badges from 7 a.m.-9 p.m. Monday-Friday; and 8 a.m.-4 p.m. Saturdays. Dependents must be between 16 and 23 years old.

Intercenter run: Runs throughout April. For more information call the Gilruth.

Fitness Challenge: 1996 Fitness Challenge runs to Aug. 31. Employees are eligible to win \$100 gift certificates. For more information call Larry Wier at x30301.

Defensive driving: One day course is offered April 20. Cost is \$25. Interested employees should call the Gilruth.

Stamp club: Meets at 7 p.m. every 2nd and 4th Monday in Rm. 216.

Women's self defense: Martial Arts training for women only from 5-6 p.m. Tuesdays and Wednesdays. Cost is \$25 a month.

Weight safety: Required courses for employees wishing to use the weight room are offered from 8-9:30 p.m. April 11 and April 25. Pre-registration is required. Cost is \$5.

Exercise: Low-impact class meets from 5:15-6:15 p.m. Mondays and Wednesdays.

Aikido: Martial arts class meets from 6:15-7:15 p.m. Tuesday and Wednesday. Cost is \$25 per month. New classes begin first of each month.

Ballroom dancing: Cost is \$60 per couple. For additional information call the Gilruth Center at x33345.

Country and Western dancing: Beginner class meets 7-8:30 p.m. Monday. Advance class meets 8:30-10 p.m. Monday. Cost is \$20 per couple.

Fitness program: Health Related Fitness Program includes a medical examination screening and a 12-week individually prescribed exercise program. For more information, call Larry Wier at x30301.

JSC

Swap Shop

Swap Shop ads are accepted from current and retired NASA civil service employees and on-site contractor employees. Each ad must be submitted on a separate full-sized, revised JSC Form 1452. Deadline is 5 p.m. every Friday, two weeks before the desired date of publication. Ads may be run only once. Send ads to Roundup Swap Shop, Code AP2, or deliver them to the deposit box outside Rm. 181 in Bldg. 2. No phone or fax ads accepted.

Property

Sale: Cozy, private condo, w/study, 1 BDR, FPL, W/d, gates, alarm, hi-ceiling, 997-5763.

Sale: University Trace condo, 1BDR + study, new paint & carpet, appliances, \$32.5k. 333-3925.

Sale: Pipers Meadow, 3+study/2/2A, new roof, solar screens & paint, many upgrades & extras, ex cond, \$80k. x38668 or 286-0507.

Sale: Clear Lake Oakbrook, 4-2-2.5, 2 family rooms, whirlpool bath, new roof/outside paint, oriental garden, pond, ex cond, \$99.5k. 480-5672.

Sale: Friendswood, Heritage Park Village, 3-2.5-2+ optional 4 BDR, 2137 sq ft, ex cond, \$110k. 992-4043.

Sale: Wooded lot 90'x135' in Taylor Lake Estates, \$39.5 can finance. Don, x38039 or 333-1751.

Sale: 130 cleared acres, 5 pastures, 15 mi E. of Tyler, house, hay & horse barns, divide, all amenities. 488-5058.

Sale: Laporte/Creekmont, 3-2-2, w/FPL, new roof, new carpet/linoleum, fresh paint, \$65.5k. 992-5080.

Rent: Egret Bay Condo, 1-1-2, FPL, ceiling fans, avail May 1, \$457 mo + \$475 dep. x32794 or 486-9876.

Sale: 26.8 acres, Dimebox, TX, 28' x 70' double wide, 3-2-2D, FPL, porch, utility bldg, barn, 2 large ponds, cross-fenced, coastal grass. 473-0117.

Sale: Lot, League City, 82'x130', \$6.5k. 332-6616.

Sale: L.C. Bayridge subdivision, 3-2-2, cul-de-sac, new roof, \$55k make offer. James, 286-1934.

Sale: Dickinson, 3-2-1, 3 yrs old, covered patio, gas utilities, \$66,950. 543-4962.

Sale: League City, 3-2-2 house, 3 acres, barn, pond, beautiful setting, lots of trees, \$140k. 554-6138.

Sale: Webster condo, 2-2-2CP, upstairs, new A/C, solar screens, kitchen & bath upgrade, wbi/fpl, ceiling fans, W/D conn, \$37.5k. 280-0285.

Sale: Boat Slip on Clear Lake, w/roof & motorized boat hoist for power boats, \$7.5k. 474-4922.

Rent: South Lake Tahoe cabin, sleeps 8, cable TV, VCR, microwave, 3-2, modern kitchen, W/D, \$75/ntly, wkly & holiday rates. x41065 or 326-2866.

Rent: Beach house, Crystal beach, Galveston County, fully furn, ocean view, sleeps 10, cable TV, FPL, weekend/wkly rates. 486-1888.

Cars & Trucks

'84 Toyota Celica GT, 5 spd, A/C, maroon, \$1.1k obo. 282-6753 or 488-7354.

'91 Honda Civic, 2 dr, white, 30k mi, ex cond, \$9.6k. 554-5492.

'76 Buick Regal, 2 dr, blue, 350 V8, 81.5k mi, good cond, \$1.4k. Conner, x38193.

'85 Mustang convertible, low miles, ex cond, \$2.9 obo; '90 Ford Aerostar XLT extended van, ex cond, 1 owner, \$6.9 obo. Thompson, 332-2229.

'82 Corvette Collectors Edition, 42k mi, show car cond, loaded, kept in garage, \$14,850. Larry,

x30559.

'86 Mercury Sable, burgundy, red interior, 3.0L, runs great, \$1.5k obo. x47342 or 486-7678.

'78 Ford LTD II, getting tired but still runs, need muffler, \$300; '92 Honda Prelude SI, blue, 48k mi, new tires, \$13.3k. 286-2128.

'73 Plymouth Duster, 225 slant 6, auto, A/C, P/S, good running cond, \$2.5k. Gene, 244-1925.

'92 Toyota truck, red, ex cond, low miles, 1 owner, A/C, AM/FM, \$8.3k. Justin or Sally, 474-9220.

'94 Explorer 4 dr XLT, 27k mi, Forest green, ex cond, non-smoker, 4.0 V6, auto, \$17,450. 332-6941.

'85 Audi 5000S, 4 dr, 62k mi, ex cond, sun roof, A/C, \$3.3k. x38151 or 532-1100.

'88 Cutlass Supreme, good cond, 73k mi, \$4,250. Nelda, 333-7686 or 332-5641.

'92 Pontiac Sunbird SE convertible, loaded, 4 cyl., auto, very good cond, \$8.5k neg. x36228.

'81 Chevette, 1 owner, 4 dr, lots of new rebuilt parts, running cond, \$500 obo. 946-7028.

'86 Dodge Aries Station wagon, 79.5k mi, \$1.1k. x47049 or 480-3424.

'87 Toyota Tercel, 3 dr, beige, 4 spd, AM/FM/cass, 41k mi, ex cond, \$2.8k. Robert, x48654 or 480-3052.

'72 Classic Mustang Mach I, 350 Cleveland w/4-barrel, auto, AM/FM/cass, newly restored body & paint, no rust, \$5k. Jim, x47459 or 484-2817.

'91 Ford Taurus WS-G, new A/C, new transmission, clean, 76k mi, \$4.9k. 283-4230.

'90 Nissan Stanza XE, power, A/C heat, auto, 81k mi, ex cond, \$5.5k. Linda, 283-0311 or 409-925-4862.

'80 Subaru, 5 spd, 4 dr, good school or work car, \$1k obo. Mike, x34823.

'92 Chevy Lumina, Euro 3.4, black/grey interior, sport instrumentation, all options, w/Delco Bose AM/FM/cass, alarm, 1 owner, garaged, ex cond, \$9.5k. Ron, x33196.

'84 Mazda RX-7 GSL-SE, black/red, 5 spd, sun-roof, AM/FM/cass, good cond, \$2,950. 318-0412.

Boats & Planes

Sailboat Sovereign 24', ex cond, main, jib, 125' genoa, depth sounder, head, stove, safety equip, electric start Johnson OB. \$4,950 make offer. Mike, 282-2787 or 286-1691.

'92 Kawasaki Jet Ski Supersport, new engine, trailer, life vest, \$3.5k obo. 488-5962.

'95 Watercraft Polaris SL750, warranty, trailer, access, ex cond, low hrs, \$5k obo. 484-3574.

'93 Center console boat, 16', w/'94 Mercury 90, power trim & tilt, live well, fish finder, storage, neg price. 481-3900.

'94 SeaRay SeaRayder, 14' 90Hp jet, less than 25 hrs, access, warranty, garage kept, ex cond, \$62.k. x47922 or 331-8521.

'85 Chris Craft Sportsman, 36', twin Mercruiser engines, shower, toilet, refrig, low eng hrs, large open back deck, \$35k obo cash only. 339-1197.

Cycles

'82 Honda Moped, good cond, 2.4k mi, \$500 obo. 337-9218.

Audio Visual & Computers

486 VLB motherboard w/Intel DX2/66 CPU & Genoa SVGA VLB video card, \$175 obo. x33187 or 488-5162.

CompuAdd 386 w/1.2MB 5.25" drive, 40MB HD,

JSC

Dates & Data

Today

Cafeteria menu: Special: meat sauce and spaghetti. Total Health: baked potato. Entrees: rainbow trout, liver and onions, beef cannelloni, ham steak, fried cod fish, Reuben sandwich. Soup: seafood gumbo. Vegetables: steamed broccoli, breaded okra, cut corn, black-eyed peas.

Monday

Cafeteria menu: Special: turkey and dressing. Total Health: herb flavored steamed pollock. Entrees: breaded veal cutlet, chicken fajitas, steamed pollock, beef, French dip sandwich. Soup: beef and barley. Vegetables: Brussels sprouts, mixed vegetables, egg plant casserole, winter blend vegetables.

Tuesday

Cafeteria menu: Special: pepper steak. Total Health: barbecue chicken. Entrees: baked lasagna, pork chop and fried rice, turkey a la king, baked chicken, fried cod fish, French dip sandwich. Soup: black bean and rice. Vegetables: breaded squash, steamed spinach, baby carrots, navy beans.

Wednesday

Toastmasters meet: The Space-land Toastmasters will meet at 7 a.m. April 10 at the House of Prayer Lutheran Church. For more information call Jeannette Kirinich x45752.

MAES meets: The Society of Mexican American Engineers and Scientists will meet at 11:30 a.m. April 10 in the Bldg. 3 Cafeteria executive dining room. For information call Michael Ruiz at x38169.

Astronomers meet: The JSC Astronomy seminar will meet at noon April 10 in Bldg. 31, Rm. 129. An open discussion meeting is planned. For details call Al Jackson at x35037.

PSI meets: The Clear Lake Chap-

ter of Professional Secretaries International will meet at 5:30 p.m. April 10 at the Holiday Inn NASA Road 1. This meeting will elect officers for the next year and is closed to guests. For more information call Elaine Kemp at x30556.

Cycle club: The Space City Cycle Club will meet for a 25-mile ride beginning at 6 p.m. April 10 at the University of Houston Clear Lake soccer field. For more information on this ride and weekend rides call Mike Prendergast at x45164.

Cafeteria menu: Special: Mexican dinner. Total Health: steamed pollock. Entrees: broccoli cheese quiche, spare ribs and sauerkraut, steamed fish, Reuben sandwich. Soup: seafood gumbo. Vegetables: Spanish rice, pinto beans, peas, broccoli.

Thursday

Crew briefing: The STS-76 crew will share flight memories at 2:30 p.m. April 11 in Teague Auditorium.

NPM meets: The National Property Management Association will meet at 5 p.m. April 11. For more information and meeting location call Marie-France Smith x39309.

Airplane club meets: The Radio Control Airplane Club will meet at 7:30 p.m. April 11 at the Clear Lake Park Community Bldg. For information call Bill Langdoc at x35970.

Cafeteria menu: Special: hamburger steak with onion gravy. Total Health: baked potato. Entrees: corned beef, cabbage and new potatoes, chicken and dumplings, meat ravioli, French dip sandwich. Soup: broccoli cheese and rice. Vegetables: navy beans, cabbage, cauliflower, green beans.

Friday

STS-1 party: JSC's "Liftoff Party" celebrating the 15th anniversary of

STS-1 will be held from 5-9 p.m. April 12 at Space Center Houston. Tickets cost \$5 and are on sale at the Bldg. 11 Exchange Store. For details call the Exchange Store at x35350.

Astronomers meet: The JSC Astronomical Society will meet at 7:30 p.m. April 12 at the Lunar & Planetary Institute 3600 Bay Area Blvd. For details call Chuck Shaw at x35416.

Cafeteria menu: Special: tuna noodle casserole. Total Health: broiled chicken breast. Entrees: deviled crabs, broiled pollock, liver and onions, broiled chicken with peach half, Reuben sandwich. Soup: seafood gumbo. Vegetables: Italian green beans, cauliflower au gratin, steamed rice, vegetable sticks.

April 17

Scuba club meets: The Lunarfins will meet at 7:30 p.m. April 17 at Redfish Restaurant under the Kemah/Seabrook Bridge, Seabrook Side. For details call Fred Toole at x33201.

April 18

Directors' meet: The Space Family Education board of directors will meet at 11:30 a.m. April 18 in Bldg. 45 Rm. 712D. For more information on this open meeting call Gretchen Thomas at x37664.

April 25

Radio club meets: The JSC Amateur Radio Club will meet at noon in Bldg. 216 Rm. 253. For details call Larry Dietrich at x39198.

April 26

Spring concert: The Bay Area Chorus presents "Music of the Americas," 8 p.m. April 26 at the United Methodist Church. Tickets are on sale at the Bldg. 11 Exchange Store. For details call Irene Piatek at x39043.

14" Sansung CVGA monitor, mouse, misc S/W, Panasonic KPX-1124i (24-pin dot matrix printer), \$500 obo; IBM PCjr. w/expansion chassis, IBM color monitor, 640k RAM, two 5.25" drives, \$100 obo. Richard, x31488.

Sony double speed CD-ROM drive w/controller card, \$50. Mark, x30044.

Dell 486DX2-66MHz full power system w/15" monitor, 16 bit Media Vision Sound Card, VSR 14.4 bps fax/modem, 405MB HD, 8MB RAM, joystick, \$800. Kent, x34857 or 333-5181.

Smith Corona Personal word processor, w/Corona-Calc, extras, still under warranty, \$295. Faye, 708-6179.

486DX2-66, 8MB mini-twr, 14" SVGA, \$695; Compaq 386, 4MB 14" VGA, \$395; Pentium 7-100-133-166, 8MB/635, Win 3.11 or 95+Office, \$989-1059-1219-1539 w/14" SVGA; 17" SVGA, \$375. Don, 333-1751.

100 watt Pioneer stereo system w/cass & turntable in cabinet, 2 tower speakers, \$500 obo. K.D., x36228.

Nokia car phone w/2-hr battery & charger, 100-number programmable memory, extra features, \$100 firm. x39034 or 474-2660.

Musical Instruments

Conn alto saxophone, includes case & 2 mouth pieces, \$350. x37633 or 660-6345.

Guitar, Ibanez Roadmaster II, w/case, \$250; guitar amp, Lab7 w/4 10" speakers, \$200; bass amp, acoustic 310 w/1 15" speaker, + additional 1 15" cabinet, great sound, \$300. 282-1727.

Electric guitar, Peavey Predator AX, new \$375 make offer. 554-6200.

Photography

Camera, 35mm system, Canon A-1 w/4 lenses, flash, & winder, \$500. 489-3266.

Pets & Livestock

Free Easter kittens, 3 orange tabbies, 1 gray tabby. Kim, x48749.

Free Blonde golden retriever, 1 yr old, up to date immunizations. Tracee, 538-1711.

Easter bunnies, feed & instructions included, \$15, cages available. 554-6200.

Household

Drexel solid wood dining table, 8 chairs, 2 arm, 6 side & buffet, transitional style fruitwood finish, ex cond, \$1.5k. Susan, x36251 or 486-8865.

Green recliner, \$75. x36080.

GE cooktop & double wall ovens, white, very good cond, make offer. 326-1743.

Bedroom set, full sz, antique green w/dresser, 5 drawers, chest & 2 night stands, Italian design, great cond, \$950. Magdi Yassa, 333-4760 or 486-0788.

Complete baby bedding/nursery set, bumper pads, comforter, lamps, other items, plus extra fabric, Hobby horse design. ex cond. 488-3314.

Race car bed, hutch & chest, \$200 obo. 488-5962.

Coffee table, thick glass over 2 decorator oriental stands, \$350; 4 office chairs, adj, large wheels, \$225 ea sell \$50 ea. 488-5564.

Stainless steel Jenn-Air cooktop w/4 burners & electric grill, needs wiring, fan motor & switch, \$150. 474-4747.

'50's Danish Modern dinette set, table, leaf, chairs, ex cond, \$150. 282-5282 or 326-4665.

White sewing machine, new, \$100; sewing/reading light attaches to table. \$30. x36080.

Baby-bed, designer Child Craft, ex cond, white, good mattress, \$225. 523-1263.

Armoire (wardrobe) circa 1920, solid wood, 3 drs, 2 sect for hanging clothing, 3rd for drawer storage, @ 75"H x 23"D x 58"W, shoe racks, pull out hangers & mirror fitted inside, \$600. F. Mount, x33723 or 488-1554.

Bedroom set, French Provincial, headboard, night stand, triple dresser & mirror, desk w/hutch & chair, \$350. 488-1326.

Microwave, Panasonic, 700 watts, rotary turn table, 1 cu ft, instruction book, ex cond, \$50. John, 326-2461.

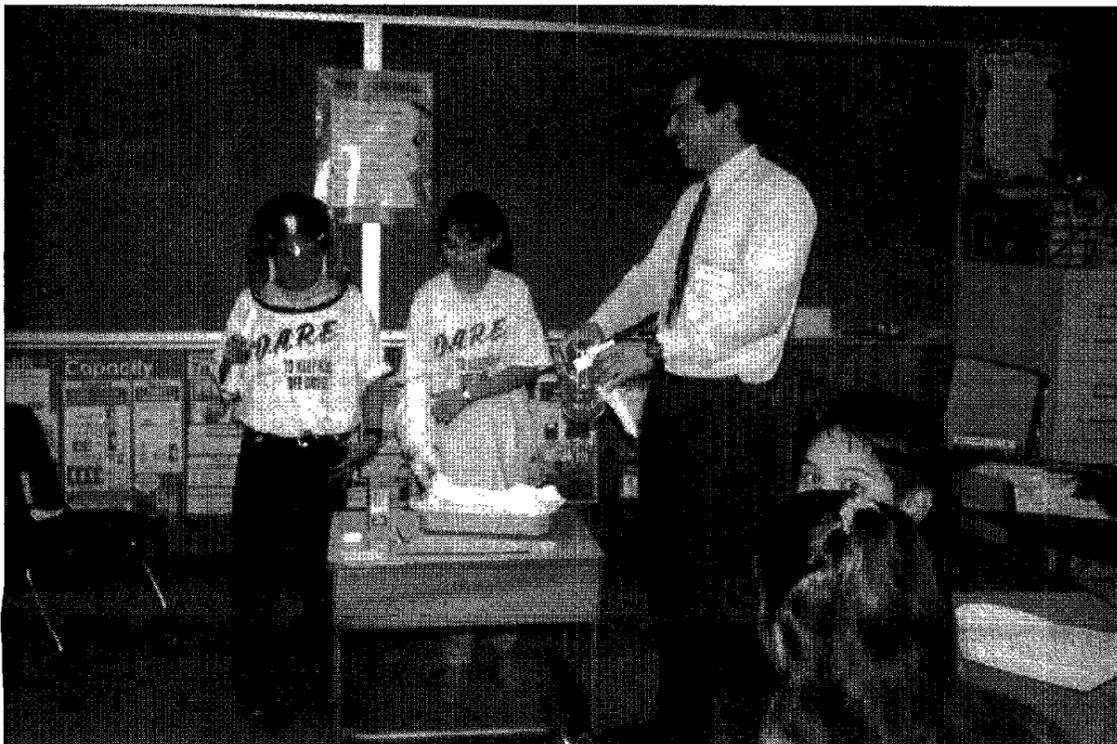
Fish aquarium, lighted coffee table, 3'x3' glass top, 2'x2' clear acrylic base, access, \$350 obo; framed & matted large contemporary prints, \$10 - \$50 ea obo. 282-0669.

Lounger, recliner, brown, ex cond, \$25. Mary, x36518 or 486-1766.

Kenmore refrigerator, freezer on top, white, \$200. x31450 or 992-4537.

Bedroom set, Contemporary, white, double bed w/canopy, night stand, triple dresser w/mirror, new mattress, \$250. 482-7643.

Formal, maple colonial dining table, 6 chairs, 2 leaves, \$650; hutch/dresser, \$325; 4 TV trays, wood, \$35; large square coffee tables, \$30 ea; end tables, \$30; 2



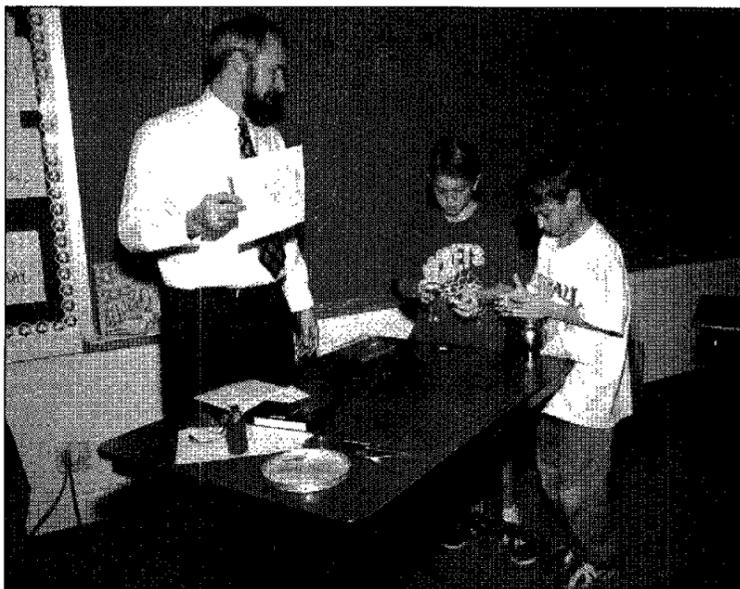
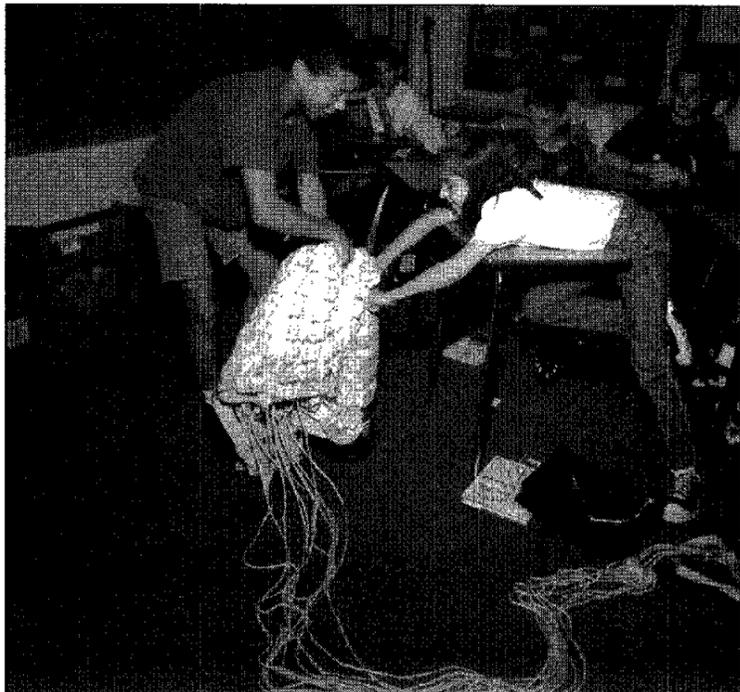
From top to bottom:

1) Safety, Reliability and Quality Assurance Director Charles Harlan explains to Jerelyn Perroni, left, and Jonathon McGee, 8th grade honors science students at Clear Lake Intermediate School, how a van de Graff generator uses a rubbing belt, mechanical energy, to create sparks of static electricity.

2) Jesus Cabrera of Loral shows 5th grade math students Hector Gamez, left, and Nancy DeLeon at Pomeroy Elementary School in Pasadena how to construct a rocket powered by the pressure generated from an antacid tablet reacting with water.

3) Sixth-grade science students Brian Buckner, left, and Julie Salarv at Clear Lake Intermediate School try to pack the Orbiter Pilot Parachute back into its bag.

4) Keith Van Tassel of the Propulsion and Power Division instructs 6th grade students Scott Moore, center, and Jacques Pryor at Clear Lake Intermediate School how to assemble space flight hardware.



JSC Photos by Benny Benavides, Mae Mangieri



Teaching Technology

JSC employees share wonders of science, math, engineering

By Mae Mangieri

More than 190 civil service and contractor employees left their busy jobs at JSC to spend time with students and teachers for National Engineers Week last month. Their purpose was to motivate students to pursue science, mathematics and technical courses and to demonstrate how those subjects apply to real-world careers.

Although most of the volunteers included engineering and technical professionals, individuals with various backgrounds also helped, as did members from senior management and retired JSC employees. To better handle the 400 presentation requests, JSC's Education Outreach Program began a new working partnership with local contractors to increase the number of volunteers. The successful partnership added more than 70 new participants from Loral, McDonnell Douglas and Rockwell to visit 117 different schools along with 120 JSC employees.

The volunteers visited schools close to JSC as well as schools in the Aldine, Channelview, Deer Park, Humble, Houston and North Forest independent school districts. They brought exhibits such as space food, Apollo lunar boots and gloves, space shuttle tiles and visual aids such as NASA videos, slides and hands-on activities. Most important, they brought real-life work experiences and shared their unique space-related knowledge with the students.

Keith Van Tassel of the Propulsion and Power Division gave a presentation on pyrotechnics and parachutes to two very enthusiastic science classes at Clear Lake Intermediate School.

"It gets more fun every year," Van Tassel said. "The kids were really enthusiastic about learning about science and space and they were really interested in getting their hands on the hardware."

Van Tassel was well-received by the students and their teacher. "Mr. Van Tassel related extremely well with my students," wrote Clear Lake Intermediate School Science Teacher Susan McCullough. "They are an inquisitive bunch, and their activity level is sometimes very exhausting. I learned quite a few things myself from Mr. Van Tassel's presentation. Students are always full of questions, and many times a teacher does not possess all of the answers."

One Education Outreach Program objective is to assist teachers in preparing students for

the work force by providing information and a presence in the classroom. National Engineers Week is a significant opportunity to accomplish this educational commitment to the community. In a thank-you note to Andrew Sylvester of the Systems Engineering Simulator, Principal Gilberto De Leon from Matthys Elementary School in Pasadena expressed his gratitude.

"Many times, students of this socioeconomic environment do not get a chance to see examples of professional people outside of education," De Leon wrote. "You do not know what a valuable contribution you made in the lives of these young individuals."

National Engineers Week is an annual event to increase public awareness and appreciation of engineers and their work. More than 3 million engineers, teachers, and students participated nationwide. Engineers and other volunteers visited classrooms to show students how math, science and engineering create the world around them and to introduce them to technical careers.

JSC's Education Outreach Program provides volunteers for schools in the local educational community throughout the year, and new volunteers are always needed. As a volunteer, employees can help educators reach students by participating as guest speakers, science fair judges, tutors, mentors and E-mail mentors. Time spent participating in an approved Education Outreach event is official duty time, and civil service employees may charge their volunteer time, up to 40 hours per calendar year, to a special education labor code.

For more information about the Education Outreach Program, call x32929. □



ENGINEERS
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NATIONAL ENGINEERS WEEK
FEBRUARY 18-24, 1996

NASA scientist develops new pilot training tool

A NASA scientist has developed a prototype of a software program that helps pilots learn how to fly advanced commercial aircraft using a laptop computer.

Developed by Steve Casner, a researcher at the Ames Research Center, the program mimics the flight management system of an automated "glass" cockpit and allows flight training professionals to program their own learning materials and exercises for students. The program operates on a Macintosh computer.

"This is basically an electronic tutor that supports pilots in their training and in the ongoing learning process," Casner said. "Because of the decreasing size and increasing power of small computers, we are able to incorporate a tremendous amount of information into a small package and provide more learning opportunities. These opportunities can take place anywhere and at any time—whenever the need for further information or practice arises."

Casner spent two years working to

emulate the program found in the aircraft's flight management computer.

The software program features five windows: a control/display unit, mode control panel, two maps showing the aircraft's lateral track and its vertical track, and a flight mode enunciator showing which flight systems are currently controlling the airplane. In addition, there is a section to the right of the control/display unit for inputting text and carrying on a dialogue with the pilots. The software program is designed to utilize

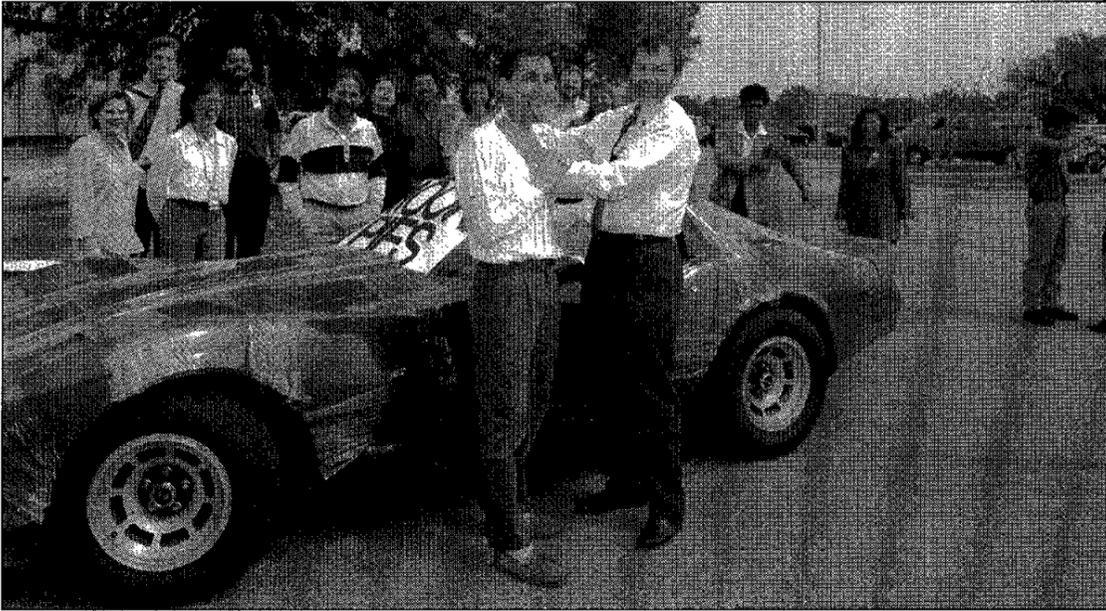
video, audio and film clips to illustrate various flight sequences.

"When we want to demonstrate something, small versions of charts, videos and photos can be programmed into the laptop," Casner said. "My intent was to provide a platform that can be expanded by flight instructors and other pilots to meet their training needs."

"As airplane systems become more complex, the training challenges for airline companies and pilots increase," Casner said. "Our

goal is to investigate new technologies and techniques that can help meet those challenges. Tools such as the laptop training device give pilots an opportunity to learn more on their own, to complement traditional classroom and flight simulation training."

Casner has demonstrated the new program to several major U.S. airlines and received inquiries from foreign carriers. He plans to test the program in a major airline's pilot training program.



JSC Photo by Nick Nelms

PLAID PARTING—The International Space Station Program's Dale Thomas pretends to strangle coworker Mark McDonald, who was the "arch-architect" of going-away caper that involved making Thomas' beloved red Corvette into a plaid vehicle. The group had just come from a Vehicle Integrated Process Team meeting, where McDonald had given a presentation for a proposal "to relieve stress by painting employees' cars to match their personalities." Thomas, who is well-known for his plaid ties, later ripped open the case of Moon Pies on the roof of the Corvette, and tossed them to everyone. Thomas is heading home to Alabama, where such treats are even more common than in Texas.

STS-1 anniversary party expands again

JSC's "Liftoff Party" celebrating the 15th anniversary of STS-1 and set for April 12, has been expanded to include additional entertainers, art exhibits and a special message from Cosmonaut Researcher Shannon Lucid aboard the Mir Space Station.

The party, a combined celebration of human space flight, the rich traditions of the Russian and American space programs and their new partnership, is being held in conjunction with an all-day Saturday festival sponsored by City of Nassau Bay, the sister city of Star City, Russia. April 12 is the 35th anniversary of the first manned Russian rocket launch of Yuri Gagarin. JSC and Nassau Bay have combined their events.

The party will be held April 12 at Space Center Houston from 5-9 p.m. A short program will include guest speakers John Young, cosmonaut Vladimir Titov and a special message from Lucid. Exhibits will include photographs by Andrew "Pat" Patnesky, and selected artwork by Julia Felgman, Andre Sokolov and Alexei Leonov.

Nassau Bay's Saturday activities kick off at 6:30 a.m. with the launch of the space shuttle and Southwest Airlines hot-air balloons from Howard L. Ward Park. The

Russian Dance Troupe and Troika Band will play at 6:30 p.m. at the Nassau Bay Hilton, and a Russian Festival Farewell Banquet, featuring entertainment by the Eddie Adcock Band and Jack Bacon Choral Group, will begin at 7 p.m., also at the Hilton.

Tickets are on sale at the Bldg. 11 Exchange Store. Ticket prices for the combined festival at Space Center Houston, will be \$5 for ages 5 and up and are available through April 12. The first 1,000 tickets sold at the Exchange Store will include a commemorative button of the STS-1 15th anniversary. A limited number of tickets will be available for purchase at the door. Parking at SCH is free.

Admission will allow party-goers access to all exhibits and activities available at SCH, except tram tours. Snacks and soft drinks are included in the tickets, which also may be exchanged for beverage coupons. Optional food purchases can be made at the Silver Moon Cafe. Live entertainment will include a Russian Dance Troupe, Troika Band, the Lone Star Bluegrass Band and, now, the Max-Q astronaut band.

For more information call the Exchange Store at x35350, or Nassau Bay City Hall, 333-4211.



Garman top assistant for management

(Continued from Page 1)
the director of administration for Hernandez Engineering Co. In 1987, she joined JSC in the Administration Directorate. Since then, Garman has served in numerous key center and agency positions, including temporary

assignments on the NASA administrator's staff both as the executive assistant to the administrator and as the special assistant to the chief of staff; in various center procurement positions; and since May 1994, as executive assistant to the director at JSC.

The assignment follows a February announcement in which veteran astronaut John Young was named JSC associate director, technical. Young is responsible for technical, operations safety and oversight of all programs and activities at JSC.

Chilton says: 'The spirit of '76 is alive and well'

(Continued from Page 1)
during the rendezvous, during the EVA, during the undocking and during the landing," Chilton said. "The teamwork displayed and the support that each crew member gave each other was just spectacular. The spirit of '76 is alive and well."

Pilot Rick Searfoss said the flight's historical significance dawned on him as *Atlantis* was departing from the Mir.

"Mir was off on the horizon and I could just barely make out its shape, to tell that it was something other than just a little star out there," Searfoss said. "And then I realized—one of my friends is there, and she's going to stay for a long time, and there are going to be Americans in space for a long, long

time. It is just flabbergasting to me." Payload Commander Ron Sega agreed, explaining that the doors opened by STS-76 will have far-reaching consequences.

"I think our flight will be remembered as an enabling flight, enabling Shannon and the U.S. to do long-duration studies on Mir that will continue and move on into the International Space Station era," Sega said.

Still, Searfoss added, he was most struck during the mission by a more down-to-Earth view. "The thing that most amazed me was not all the technical, wonderful things that happened in terms of this docking, but that the humans interacted right from the start—the folks that trained us and the crew."

STS-76 crew members Rich Clifford and Linda Godwin performed the first-ever space walk from a docked space shuttle during the flight, attaching several experiments to the outside of the Mir station and providing a glimpse of the International Space Station era.

"NASA is about making the difficult things look easy, and there is nothing routine about launching a space shuttle and making it work right on orbit," Clifford said. "It is a finely tuned act that is done right every time by the people here."

The crew's sentiments during the welcome home summed up by Godwin, who reminded the crowd that STS-76 continues.

"Our mission won't really be over until Shannon lands again in

August," Godwin said. "So we'll all be here again then to welcome her back."

Atlantis was towed off of Edwards' Runway 22 by late Sunday, and technicians plan to attempt a one-day cross-country ferry flight for the shuttle starting early today. Preliminary checks of *Atlantis* found the spacecraft in good condition, with no major problems evident that would slow its preparations for the fourth Mir docking mission, STS-79 in August. Early checks of the shuttle's engine compartment found a thin layer of hydraulic fluid in the area, the result of a known hydraulic leak during the mission, however the fluid appears to have done no damage to any components.

Trafton leads NASA's Office of Space Flight

Wilbur C. Trafton is now associate administrator for the Office of Space Flight, placing him in charge of NASA's Human Exploration and Development of Space Enterprise. Trafton had been acting associate administrator since Jan. 26.

"Wil brings great experience and leadership to this office," said NASA Administrator Daniel S. Goldin said last Thursday. "He's committed to a vibrant human space flight program that provides value and benefit to America."

As associate administrator for space flight, Trafton will be responsible for establishing the policies and direction of NASA's human space flight programs.

Trafton was named director of the International Space Station Program on Jan. 6, 1994. In that position he was responsible for overall planning, budgeting and management of the station, to be built and operated by the United States, Russia, the European Space Agency, Japan and Canada.

In January 1996, Trafton assumed additional responsibilities as the acting associate administrator for space flight. In his new capacity, Trafton will continue to fill both positions.

Prior to joining NASA, Trafton worked in both the public and private

sectors. From 1992-1993, he served as chief operating officer and president of Micro Research Industries, a state-of-the-art computer systems integration and software company in the Washington metropolitan area.

During a 26-year Navy career, Trafton held command and high level staff positions in areas of operations, acquisition, and international affairs. A naval aviator, he is a decorated combat veteran. He served as executive officer aboard the aircraft carrier U.S.S. Forrester and as commander of the U.S.S. Seattle.

He was the executive assistant to the commander, Naval Air Systems Command, involved in the acquisition of major aviation systems. At the Pentagon, he served as team chief for contingency planning and crisis action for the Joint Chiefs of Staff. In that capacity, he conducted congressional and executive branch liaison duties for the chairman, Joint Chiefs of Staff, on international issues. As assistant chief-of-staff for plans and policy for the commander, U.S. Pacific Fleet, he coordinated international military and diplomatic negotiations with Pacific Rim nations, including Russia. Capt. Trafton led the team that planned and managed the withdrawal of U.S. naval forces from the Philippines.

NASA Television, Internet to cover Americans on Mir

NASA Television will resume weekly editions of its Mission Update program at 10:30 a.m. CST every Friday beginning today to review the week's developments aboard the Russian Space Station Mir and U.S. astronaut Shannon Lucid's 4-1/2 month stay aboard the Russian outpost.

In addition, weekly status and science status reports will be made available on a new NASA Shuttle-Mir Web site available on the World Wide Web segment of the Internet. The site can be accessed at the address:

<http://shuttle-mir.nasa.gov/>

Lucid's arrival on the Mir on March 23 inaugurated a permanent U.S. presence in space, both on the Mir by rotating U.S. astronauts for the next two years, and eventually with astronauts on the International

Space Station beginning in the spring of 1998.

Mission Update will focus on the research being conducted aboard the Mir and key developments leading to the assembly of the International Space Station starting in the fall of 1997. Video highlights of the week's activity aboard the Mir and feature interviews regarding both Mir and International Space Station work will be included in each week's program.

The NASA Shuttle-Mir Web site will provide a variety of information about the Phase 1 Program and its mission of cooperation, investigation and operation, serving as a bridge between the space shuttle and space station Web sites. As Americans continue their consecutive presence aboard Mir, the Shuttle-Mir Web will continue its coverage of their individual missions.

Space News Roundup

The Roundup is an official publication of the National Aeronautics and Space Administration, Lyndon B. Johnson Space Center, Houston, Texas, and is published every Friday by the Public Affairs Office for all space center employees.

The Roundup office is located in Bldg. 2, Rm. 181. The mail code is AP2. The main Roundup telephone number is x38648 and the fax number is x45165.

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